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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,269

02/22/2005

Daniel J. Arriola

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07/19/2006

THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION,
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EXAMINER

KOSLOW, CAROL M

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/525,269	ARRIOLA ET AL.	
	Examiner	Art Unit	
	C. Melissa Koslow	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This action is in response to applicants' amendment of 31 May 2006. The amendments to the claim have overcome the 35 USC 112 rejection and the art rejection over U.S. 6,653,417. Applicant's arguments with respect to the art have been considered but are moot in view of the new grounds of rejection.

The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of each U.S. and foreign patent, each publication or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP 609 A(1) states, "the list ... must be submitted on a separate paper." Therefore, the references, except WO 02/38628 and U.S. 6,103,657, cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing elements will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Applicants only cited WO 02/38628 and U.S. 6,103,657 from the search report of 9 February 2004 on the information disclosure statement of 29 April 2005.

Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. The effective filing date of this application is that of the provisional application, 17 September 2002.

The disclosure is objected to because of the following informalities: The specification is silent as to how run 2 was produced. Appropriate correction is required.

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,900,321.

This reference teaches preparing interpolymers of propylene and about 0.2 to about 30 wt% ethylene (col. 78, lines 43-46) with a hafnium complex of pyridylamine ligand catalyst under addition polymerization conditions. The claimed range of ethylene overlaps the claimed range. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The metal complexes of column 55 through 58, which are used as in propylene copolymer production, all fall within the formula of claim 2. Thus the reference suggests the process of claims 2 and 4.

Column 54, line 1 through column 55, line 15 teach the catalyst used in propylene copolymer production should be a 3,2 hafnium complex catalyst where the hafnium group is HfL_2 , and L is methyl or dimethylamido, which is also known as dimethylamine and the ligand should be that of formula XIV where R^2 is hydrogen and R^3 can be o-tolyl or phenanthrenyl and R^{12} and R^{13} are both hydrogen and R^{10} , R^{11} and the existing phenyl ring form a naphthyl group. From the examples in columns 57-58 which teach 3,2 hafnium complex catalysts for propylene copolymer production, it is clear R^4 , R^5 , R^6 , Q^2 , Q^3 and Q^4 in formula XIV are all preferably hydrogen and Q^1 and Q^5 are each methylethyl groups. Given these teachings, one of ordinary skill in the art would have found it obvious to use ligands L7 and L9, which have the above discussed

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ligand formulas, as the ligands in the taught 3,2 hafnium metal complex in the production of interpolymers of propylene and about 0.2 to about 30 wt% ethylene. Thus, the reference suggests the process of claim 3. The reference suggests the claimed process.

While the most preferred range and one of the more preferred ranges are outside the claimed ranges, the other taught ranges overlap the claimed ranges. As stated above, the overlapping ranges are *prima facie* evidence of the obviousness of the claimed range. There has been no showing of unexpected results. While the reference does not explicitly disclose the formulas of claim 3, it suggests them as discussed above. The rejection is maintained.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
July 14, 2006


C. Melissa Koslow
Primary Examiner
Tech. Center 1700